

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of claims:

1. (Currently Amended) A particulate water absorbing agent having irregularly pulverized shape, ~~[[which]]~~ wherein said particulate water absorbing agent comprises a surface crosslinked water-absorbing resin obtained by crosslinking polymerization of an unsaturated monomer ~~having an acid group~~ mainly composed of acrylic acid and/or salts thereof, said particulate water absorbing agent contains agglomerated particles therein, and further said particulate water absorbing agent satisfies (i) to (iii) described below:

(i) centrifuge retention capacity (CRC) of the particulate water absorbing agent in a physiological saline solution being not lower than 32 g/g;

(ii) mass median particle size (D50) of the particulate water absorbing agent being in the range of 200 to 400 μ m; and

(iii) particles of the particulate water absorbing agent smaller than 600 μ m and not smaller than 150 μ m being in the range of 95 to 100% by weight,

wherein water content of the particulate water absorbing agent is 1 to 10% by weight.

2. (Cancelled).

3. (Currently Amended) A particulate water absorbing agent having irregularly pulverized shape according to claim 1, wherein decreased ratio of the mass median particle size by impact of the particulate water absorbing agent ~~caused by impact~~ is 5 to 30%.

4. (Previously Presented) A particulate water absorbing agent having irregularly pulverized shape according to claim 1, wherein increased ratio of the mass median

particle size of the particulate water absorbing agent due to agglomeration is 5 to 30%.

5. (Currently Amended) A particulate water absorbing agent having irregularly pulverized shape according to claim 1, wherein ~~further~~ liquid permeation time under pressure of the particulate water absorbing agent is not longer than 60 seconds.

6. (Currently Amended) A particulate water absorbing agent having irregularly pulverized shape according to claim 1, wherein ~~further~~ absorbency against pressure at 1.9 kPa of the particulate water absorbing agent in a physiological saline solution is not lower than 20 g/g.

7. (Currently Amended) A particulate water absorbing agent having irregularly pulverized shape according to claim 1, wherein ~~further~~ vortex water absorption speed of the particulate water absorbing agent in a physiological saline solution is not longer than 60 seconds.

8. (Currently Amended) A particulate water absorbing agent having irregularly pulverized shape according to claim 1, wherein ~~further~~ fluidity of the particulate water absorbing agent after moisture absorption is 0 to 20% by weight.

9. (Currently Amended) A particulate water absorbing agent having irregularly pulverized shape according to claim 1, wherein ~~further~~ logarithmic standard deviation of particle size distribution of the particulate water absorbing agent is 0.20 to 0.40.

10. (Currently Amended) A particulate water absorbing agent having irregularly pulverized shape according to claim 1, wherein ~~further~~ bulk density of gel after saturated swelling of the particulate water absorbing agent in a physiological saline solution is in the range of 0.80 to 1.0 (g/cm³).

11. (Previously Presented) A particulate water absorbing agent having irregularly pulverized shape according to claim 1, which further comprises, besides the water-absorbing resin, one or more component selected from the group consisting of a chelating agent, a deodorant, a polyvalent metal salt and an inorganic fine particle.

12. (Previously Presented) An absorbing article for excrement, urine or blood, which includes absorbent substrate formed by comprising a particulate water absorbing agent having irregularly pulverized shape according to claim 1 and hydrophilic fiber.

13. (Original) An absorbing substrate according to claim 12, wherein the absorbing substrate is a thin type with thickness of 0.1 to 5 mm.

14. (Previously Presented) An absorbing substrate according to claim 12, wherein content of the particulate water absorbing agent having irregularly pulverized shape is 30 to 100% by weight based on total weight of the particulate water absorbing agent and the hydrophilic fiber.

15. (Currently Amended) A method for production of a particulate water absorbing agent having irregularly pulverized shape, which particulate water absorbing agent comprises a surface crosslinked water-absorbing resin obtained by crosslinking polymerization of an unsaturated monomer ~~having an acid group~~ mainly composed of acrylic acid and/or salts thereof and further via drying and pulverizing steps, and said particulate water absorbing agent contains agglomerated particles therein, which method comprising:

a step of crosslinking polymerization of an aqueous solution of an unsaturated monomer containing a non-neutralized acrylic acid and/or salts thereof in the presence of a crosslinking agent;

a step of further surface crosslinking of a water-absorbing resin particle obtained by the polymerization and said water absorbing resin particle satisfying (i) to (iii)

described below:

(i) centrifuge retention capacity (CRC) of the water-absorbing resin particle in a physiological saline solution being not lower than 32 g/g,

(ii) mass median particle size (D50) of the water-absorbing resin particle being in the range of 150 to 380 μm , and

(iii) the water-absorbing resin particles smaller than 600 μm and not smaller than 150 μm being in the range of 92 to 100% by weight; and

a step of further adding aqueous liquid thereto after the surface crosslinking and heating the resin particles while maintaining water content thereof at 1 to 10% by weight and further controlling particle size.

16. (Original) A method for production of a particulate water absorbing agent having irregularly pulverized shape according to claim 15, wherein the step of crosslinking polymerization is conducted in the presence of a chain transfer agent.

17. (Previously Presented) A method for production of a particulate water absorbing agent having irregularly pulverized shape according to claim 15,

wherein the aqueous solution of the unsaturated monomer containing a non-neutralized acrylic acid in concentration of 10 to 30% by weight is crosslinking polymerized in the presence of a crosslinking agent; and

the obtained resin is neutralized after polymerization.

18. (Previously Presented) A method for production of a particulate water absorbing agent having irregularly pulverized shape according to claim 15, which method comprises a step of the addition of a chelating agent at one or more timings selected from the group consisting of (i) during polymerization, (ii) after the polymerization and before surface crosslinking, (iii) during surface crosslinking, (iv) during agglomeration.

19. (Previously Presented) A method for production of a particulate water absorbing agent having irregularly pulverized shape according to claim 15, further comprising a step of recovering and regenerating fine particles of the resin which are excluded from the pulverizing and classifying steps, thereby obtaining a water-absorbing resin particle at yield of not lower than 90% by weight based on weight of feed monomer to be polymerized as solid content equivalent.

20. (Previously Presented) A method for production of a particulate water absorbing agent having irregularly pulverized shape according to claim 15, wherein the water-absorbing resin particles are agglomerated so that shortening ratio of liquid permeation time under pressure is not lower than 10%.

21. (Previously Presented) A method for production of a particulate water absorbing agent having irregularly pulverized shape according to claim 15, further comprising a step of adding and mixing inorganic particles after the agglomeration step.